Agricultural extension – is the system dying or a new model evolving?

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1.1 Introduction

My involvement in extension started in 1982 when I worked in the public sector for five years. I followed this with a move to the private sector, where I have worked for the last 26 years, including a stint where I also taught extension at the University of Melbourne. In the private sector, we have delivered training to farmers and advisers, evaluated extension programs, conducted social research, and provided direct advice to farming businesses. I was a board member of the Birchip Cropping Group for three years.

I have been considering this question since I became an extension officer in the Victorian government in 1982.

To properly consider the relevance of agricultural extension to today’s farmer, we must ask ourselves the following questions:

These are:

- What is the aim of extension?
- If the system does indeed die, what will we lose?
- What has changed?
- Who should pay for extension?
- Who should deliver extension?
- How should it be done in the future?

These are the questions I aim to partly answer in this paper.

1.2 What is it?

Extension, in simple terms is the process of enabling adoption of innovation. It aims to allow farmers to make a decision about adoption.

Extension is often measured by the rate of adoption achieved. This may not be appropriate, as successful extension may be a decision to not adopt.

Extension is carried out by many players. Farmers, retailers, extension specialists, consultants, - the list goes on.

1.3 The problems with the old system

My years in the public sector are now more than 25 years ago, just about ancient history, but the approach we took to our work is both interesting and useful to recall, when we are considering the current relevance of extension.

In those days we had lots of state government extension officers providing advice at no charge to farmers. As such, extension was seen as an activity for the public good that should be publicly funded.
and delivered by government to achieve practice change, in particular productivity gains. However, the result of this work was that a lot of private benefit was funded by the public purse. This was considered reasonable, particularly by the farmers who took advantage of it.

The extension model we operated under made a number of assumptions. Firstly, it was assumed that most farmers were poorly educated and needed scientists to help them. Secondly, extension models assumed that innovation is a linear process where farmers directly adopt research insights they are taught about. Thirdly, it was assumed that extension of research insights to farmers was in the public interest. And finally, that the adoption of research insights would increase productivity, which is good, in fact, always good.

Although I acknowledge that there is room for debate, I contend that all of these assumptions are either overly simplistic or simply wrong. I will try to explain why I think these old assumptions were wrong in this paper. I don’t believe am alone in this contention; agricultural extension practitioners have spent the last 30 years slowly trying to move away from these false assumptions, however much extension still, I believe, adopts these assumptions. In short, I believe we have moved from a system which had some fundamental flaws. We now have the opportunity to establish principles and approaches which will benefit all stakeholders.

1.4 What has changed?

In the last 30 years, particularly the last 10, a number of significant changes have taken place.

- **Demographics** – Farms are much larger today than they were in the early 1980’s. There are a relatively small number of larger farms, and it is these farms that produce most of the agricultural production and nearly all of the innovation. James Finlay, managing director of Neil Clark and Associates, has produced a summary of 2011 Agricultural Census data. These facts demonstrate the change since 2006.
  
  Farming has grown by **$8.5 billion (18%)**  
  Corporate farms increased by **791 (44%)**  
  Farm numbers declined by **19,025 (-12%)**

- **Government** – State Governments around Australia and New Zealand have pulled out of direct extension with farmers.

- **Private sector** – There has been a large increase in the number of consultants who deliver advice to farmers, particularly as paid for advice (consultants)

- **Not-for-profit sector** – farmer groups have grown and become mainstream and some are very professional.

- **Extension** – In the last 15 years, there has been an explosion of research and new understanding in the fields of neuroscience, psychology, sociology and the implications for education and extension are significant. Extension is no longer an isolated specialist field which stands alone. The ideas and concepts are common in modern adult education. Extension is recognised as a complex process involving system change.

I believe these changes in the environment extension is conducted in, provides an opportunity to establish a new way of thinking about extension in agriculture.
1.5  Who should pay for and deliver agricultural extension?

The following diagram presents the old system of payment for extension and delivery of extension.

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In the past, policymakers and governments have presented a confused approach to supporting agricultural research and extension. Government has funded much private benefit and limited the private sector opportunity. The private sector has been crowded out by the competition from the free delivery of public services. The role of government in extension is not complex, but it has been contentious because people have vested interests and farmers have thought that they needed to protect their interests. Clearly government has a role in biosecurity, regulation and disaster relief, however, there needs to be an honest debate about who is best to deliver these services.

An important principle for government involvement in extension, ‘market failure’, is real and important. We still have small agricultural businesses that don’t have the scale for self-discovery, research and innovation. Even our larger agricultural business (say greater than income of $2 million) can be considered small businesses and have limited time and money to invest in research and development, and need to ensure the changes they make have been thoroughly tested before they are applied on farm. Therefore, combining resources in research funding bodies, community groups or a not-for-profit sector where innovation is made publicly available is important for innovation. Government has an important role in funding over coming market failure, however this doesn’t have to be, in fact, is best not, delivered by government.

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The role of the public sector is regulation, bio-security, emergency management, long-term research and overcoming market failure.
1.6 New principles for extension

I conducted a three year research project for Grain and Graze looking at social influences on farm decision making. This gave me the opportunity to conduct many interviews with farmers throughout Australia. This project provided a further insight into the decision making processes and reasons for or against innovation on farms. I will provide a summary here of my conclusions.

Modern farmers are running sophisticated and complex businesses. The decisions are often complex, meaning many factors need to be considered and many of these considerations cannot be easily quantified. The majority of decisions they make are perfectly rational. The way most farmers operate is no different to any other businesses. However, farmers are extremely time poor and tend to carefully add up the risks and rewards before making a decision due to the highly variable nature of the climate they are operating in.

When extension practitioners work with farmers to change an established practice we must:

- Respect farmers’ business decision-making and seek to understand why it is they are using the existing practice. This involves intense and careful listening and respecting their current position.
- Consider the whole farming system rather than proposing an isolated technical fix to one component of the problem. Therefore the engagement of the farmer in the development of the technology is important.
- Aim to improve the profitability of the business rather than focusing on productivity or production. Research often highlights the opportunity of increased production and researchers are frustrated when farmers don’t quickly adopt a technology which offers a production increase. Increased production doesn’t always improve profitability, lifestyle, risk management or timeliness.
- Recognise benefits of technology can be improved profitability, reduced labour or improved timeliness and or improved risk management.
- Focus on helping farmers manage risk and improve decision-making rather than increasing short-term margins.

1.7 The future

1.7.1 Out with the old – in with the new

Extension approaches must innovate in the same way they challenge farmers to innovate.

There is an opportunity for a new way of doing and thinking about extension. The essential ingredients for a new model are:

- Seek first to understand - Efficient communication between all innovators, with a recognition that innovation is carried out by all stakeholders. It is critical to recognise innovation happens in all parts of the industry and the flow of knowledge is not linear. This will provide strong feedback to the research community when their work is on or off the mark.
- A flexible, responsive approach is required. Different approaches are trialled, demonstrated and discussed throughout the community.
- A financial contribution from government is required in order to overcome market failure. It is good for the community and economy to have efficient information flow between all the stakeholders. Government keeping out of the space of the private sector to avoid crowding out. The role of the public sector is regulation, bio-security, emergency management, long-term research and overcoming market failure.
- The private sector is fragmented and needs to be stronger. This will be helped by the public sector keeping clear where there is private benefit and referring to the private sector. Development of a more robust private sector, with an integrated service provision of both business consulting and technical consulting.
And a strong not-for-profit extension sector with a recognised and respected role. The most efficient way for the public sector to overcome market failure is to fund the not for profit sector. The not-for-profit sector needs to be member funded, farmer driven and professional, to maximise the value from farmer member ships and government funding.

1.7.2 A not for profit model

Farmer groups are not for profit organisations which usually charge a membership, have sponsors and operate lean businesses providing impartial assessment of research and introducing innovation to farming communities.

There is a strong argument for State government funding of farmer groups as these groups overcome market failure by amalgamating resources and conducting their work in a professional and objective manner. They provide a role previously taken by government extension, however, through their experience in development and delivery of locally adapted, practical application of research findings; and as they have farmer members, they are more responsive to, and understanding of, farm decisions.

We believe state government funding of farmer groups could be made directly to the groups by matching membership payments. This would ensure that State government funding is only provided when farmers are making a significant contribution, demonstrating their belief in the value of the farmer group's work.

1.8 Conclusion

Previous government work in the extension no longer fits in the current system. However, extension work is definitely needed to capture the value of past and future research work. Grower groups are best placed to deliver extension work due to their independence from agribusiness and support of their members. Funding whole farm decision making extension through grower groups ensures that the work is done close to the real farming situation and believed by the farming members.

Matching membership fees with funding ensures and enhances the farmers’ commitment.

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